AMENDMENTS TO THE CLAIMS

1. (Currently amended) A radar for detecting a target ~~on the basis of a peak frequency of a peak~~, the radar comprising:

a transmitter, the transmitter ~~means for~~ transmitting a frequency modulated transmission signal; ~~and for~~

an intermediate-frequency signal generator, the intermediate-frequency signal generator generating a beat signal containing a component of a frequency equal to ~~the~~ a difference between ~~the~~ a frequency of a reflection signal from the target ~~of the transmission signal~~ and ~~the~~ a frequency of the transmission signal; and

a digital signal processor, the digital signal processor ~~means for~~ determining a frequency spectrum of the beat signal~~; and, means for~~ determining ~~the~~ a peak frequency of a peak appearing in the frequency spectrum, ~~wherein means for~~ setting a first threshold value based on ~~the basis of the~~ one of intensity of background noise or ~~the reflection signal~~ intensity of the reflection signal from a target having a fixed reflection sectional area, ~~for~~ setting a second threshold value in a fixed frequency region in the vicinity of ~~each~~ the peak ~~regarding~~ based on a plurality of additional peaks exceeding the first threshold value ~~appearing in the frequency spectrum~~, and ~~for~~ extracting ~~a~~ the peak exceeding the second threshold value ~~is contained~~.

2. (Currently amended) The [[A]] radar as claimed in claim 1, wherein the second threshold value is heightened in a fixed band of a ~~the~~ base portion of the peak expanded ~~in accordance with the expansion~~ in a ~~the~~ direction of a ~~the~~ frequency axis of the peak caused by multiplication of the beat signal by a window function.

3. (Currently amended) The [[A]] radar as claimed in claim 1 ~~or 2~~, wherein the second threshold value is heightened in a fixed band of a ~~the~~ base portion of the peak expanded ~~in accordance with the expansion~~ in a ~~the~~ direction of a ~~the~~ frequency

axis of the peak caused by ~~C/N~~ carrier/noise characteristics of an oscillator ~~for~~ generating the transmission signal.

4. (Currently amended) The [[A]] radar as claimed in claim 1 ~~any one of claims 1 to 3~~, wherein the second threshold value is ~~set so as to be~~ gradually lowered in the upward and downward frequency direction from the frequency of the peak ~~as the center~~.

5. (Currently amended) The [[A]] radar as claimed in claim 1 ~~any one of claims 1 to 4~~, wherein the second threshold value ~~is set so as to exceed the~~ exceeds an intensity of sidebands appearing together with the peak due to a modulation component superposed on the beat signal.

6. (Currently amended) The [[A]] radar as claimed in claim 1 ~~any one of claims 1 to 5~~, wherein the digital signal processor extracts ~~means for extracting~~ the peak ~~is to extract a peak~~ exceeding all of the second threshold values after the second threshold value has been set ~~starting with~~ based on a peak having a higher peak value than the ~~others regarding a~~ plurality of peaks exceeding the first threshold value.

7. (New) A method for detecting a target, the method comprising:

transmitting a frequency modulated transmission signal;

generating a beat signal containing a component of a frequency equal to a difference between a frequency of a reflection signal from the target and a frequency of the transmission signal;

determining a frequency spectrum of the beat signal;

determining a peak frequency of a peak appearing in the frequency spectrum;

setting a first threshold value based on one of intensity of background noise or intensity of the reflection signal from a target having a fixed reflection sectional area;

setting a second threshold value in a fixed frequency region in the vicinity of the peak based on a plurality of additional peaks exceeding the first threshold value; and

extracting the peak exceeding the second threshold value.

8. (New) The method as claimed in claim 7, further comprising multiplying the beat signal by a window function so as to heighten the second threshold value in a fixed band of a base portion of the peak along a frequency axis.

9. (New) The method as claimed in claim 7, further comprising heightening the second threshold value in a fixed band of a base portion of the peak along a frequency axis based on carrier/noise characteristics of an oscillator generating the transmission signal.

10. (New) The method as claimed in claim 1, wherein the second threshold value is gradually lowered in the upward and downward frequency direction from the frequency of the peak.

11. (New) The method as claimed in claim 1, further comprising superposing a modulation component on the beat signal so that the second threshold value exceeds an intensity of sidebands appearing together with the peak.

12. (New) The method as claimed in claim 1, further comprising extracting the peak exceeding all of the second threshold values after the second threshold value has been set based on a peak having a higher peak value than the plurality of peaks exceeding the first threshold value.